

SMALL HEXAGONAL BOX

Discrimination of Shape Matching

Materials

One yellow equilateral triangle; six red isosceles obtuse triangles that have a black line on the side opposite to the obtuse angle; six gray equilateral triangles with black lines on two sides; three green equilateral triangles, one of which has black lines on two sides and two with black lines on one side; and two red equilateral triangles with a black line on one side.

Presentation

When the directress initiates the selection of the material:

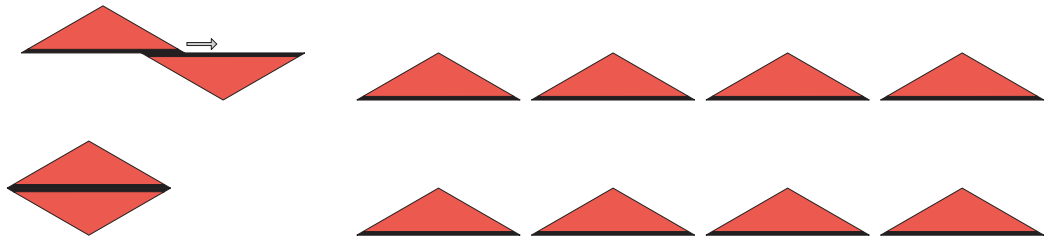
1. Invite the child to work with the 'small hexagonal box'.
2. Show the child where the small hexagonal box is located on the shelf.

When the child has made the selection of the material, begin with the third step after naming the material for the child.

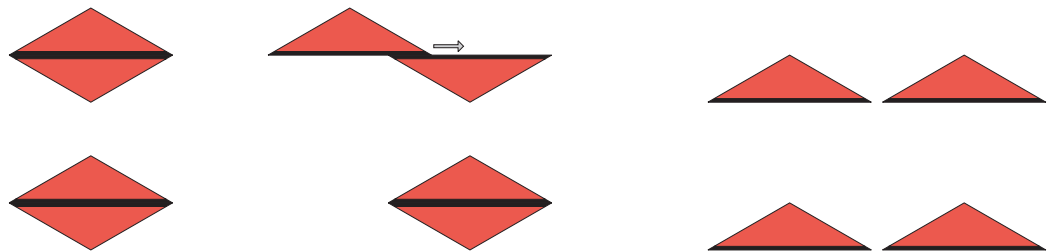
3. Indicate the procedure for carrying the material: one hand on each side of the hexagonal box with the thumbs on the top and the fingers underneath.
4. Place the box on a rug.
5. Place the box in the upper left side of the rug.
6. Remove the lid and place the lid to the right of the box.
7. Say, "I will make shapes with triangles."
8. Select the yellow equilateral triangle and place it to the right of the lid.
9. Remove the six red isosceles obtuse triangles, one at a time from the box. Place them at the bottom of the rug in a straight line below the box. Replace the lid.



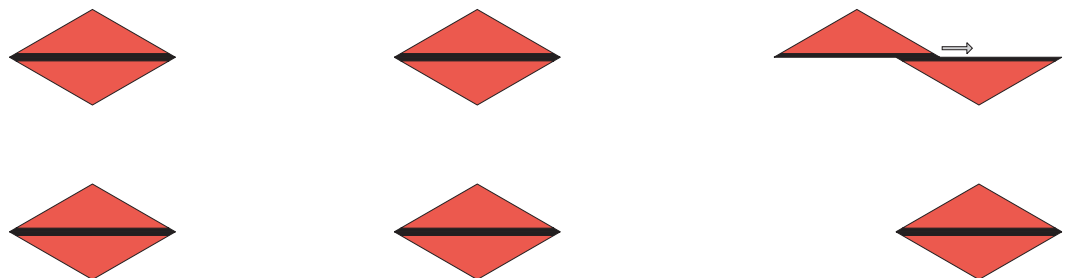
10. With the index and middle fingers trace the black lines of the first and second red triangles. Slide the black line of the triangle against the black line of the other red triangle to form a rhombus.



11. With the index and middle fingers trace the black lines of the red triangles. Slide the black line of the triangle against the black line of the other red triangle to form another rhombus.



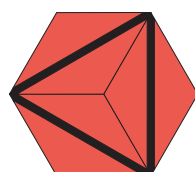
12. Repeat the same steps with the last two red triangles.



13. Select the first two rhombi and place them in the following position.



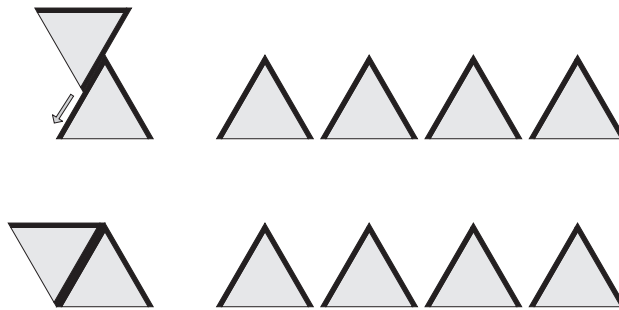
14. Select the third rhombus and place it in the following position completing the hexagon.



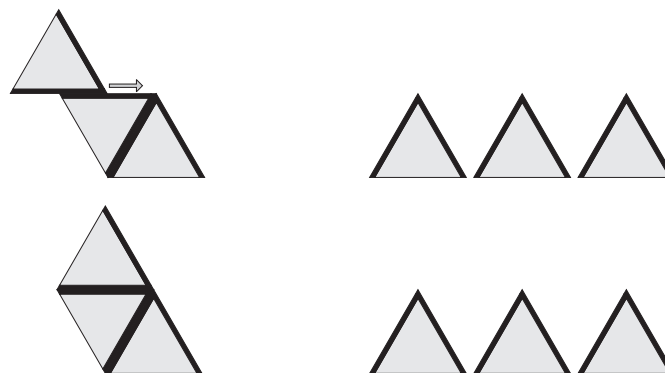
15. Remove the lid. Remove six gray equilateral triangles, one at a time from the box. Place them in a straight line to the right of the red hexagon. Replace the lid.



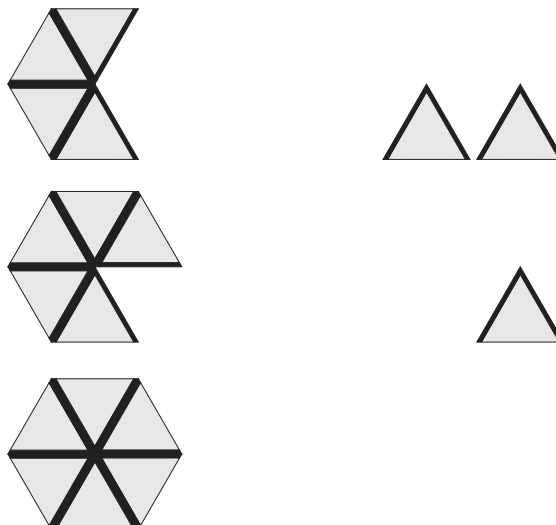
16. With the index and middle fingers trace the black line of the first and second gray triangles. Slide the black lines of the triangles together to form a rhombus.



17. Select the next triangle and repeat the same procedure.



18. Continue to repeat same procedure with the last three triangles.



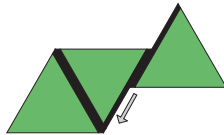
19. Remove the lid. Remove the three green equilateral triangles, one at a time. Place them in a straight line to the right of the gray hexagon. Replace the lid.



20. With the index and middle fingers trace the black line of the first and second green triangles. Slide the black line of the triangles together to form a rhombus.



21. Select the next triangle and repeat the same procedure to form a trapezoid.



22. Remove the lid. Remove the two red equilateral triangles, one at a time. Place them in a straight line to the right of the green hexagon. Replace the lid.

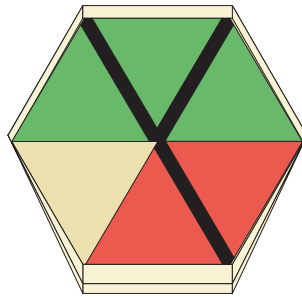


23. With the index and middle fingers trace the black lines of the two red triangles. Slide the black lines of the triangles together to form a rhombus.

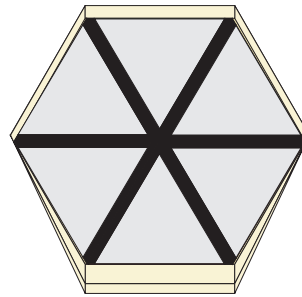


24. Replace the material into the box.

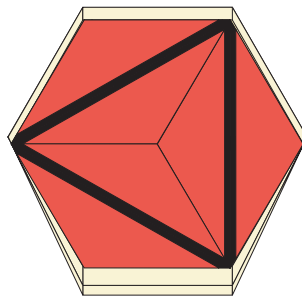
Layer 1:



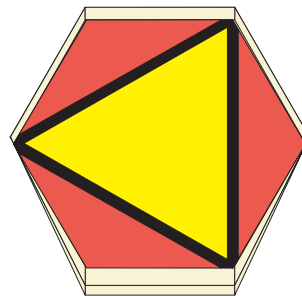
Layer 2:



Layer 3:



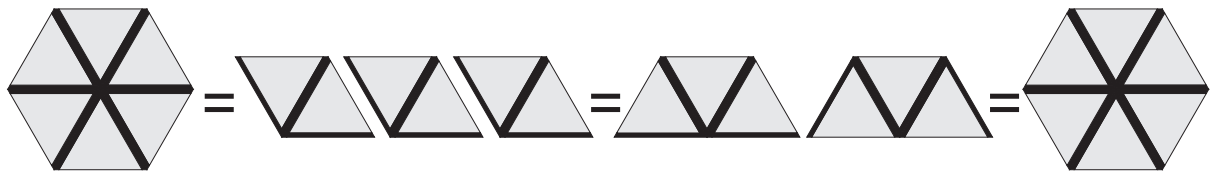
Layer 4:



25. Return the material to the shelf in the manner indicated in #3.

Variation 1

Proceed as in Presentation 1 through step #18. Move the six gray triangles of the hexagon to form three rhombi. Then form two trapezoids. Then unite them to form the hexagon.



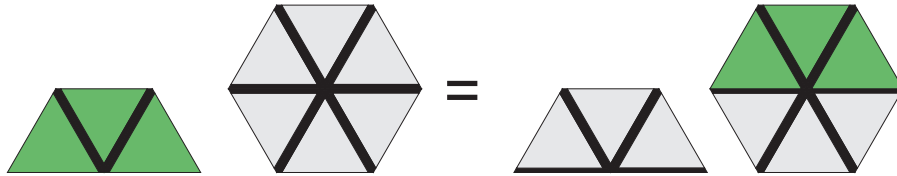
Variation 2

Move the six red triangles of the hexagon to form three rhombi. Then unite them to form the hexagon.



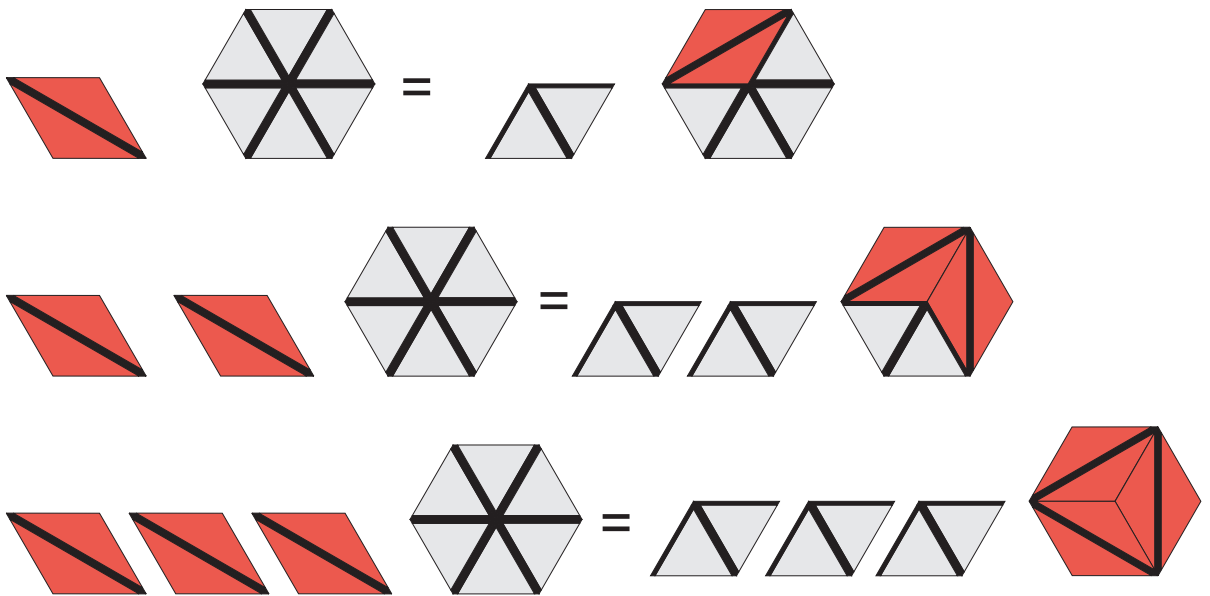
Variation 3

Compare the green trapezoid with the gray hexagon by removing three gray triangles that form a trapezoid and replace it with the green one.



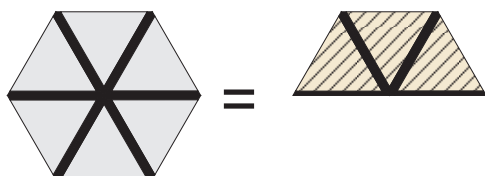
Variation 4

Compare one of the rhombi formed by the red triangles with the gray hexagon by removing two of the gray triangles and replacing it with the red rhombus. Remove a second gray rhombus and replace it with a red rhombus. Finally, remove the last gray rhombus from the hexagon and replace it with the last red rhombus. With your index finger, indicate that the black lines show an equilateral triangle contained in the hexagon.



Variation 5

Fold the gray hexagon in half by overlapping the equilateral triangle, forming a trapezoid.



Variation 6

Fold over 1 green equilateral triangle, to form a rhombus.



Variation 7

Fold over the gray triangles, to form a rhombus. Point out the red, green, gray rhombi again.



Variation 8

Fold over the two red equilateral triangles (formerly a rhombus), to form an equilateral triangle.



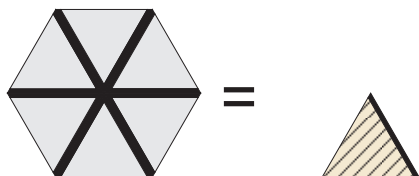
Variation 9

Fold over the green equilateral triangles (formerly a trapezoid), to form another equilateral triangle.



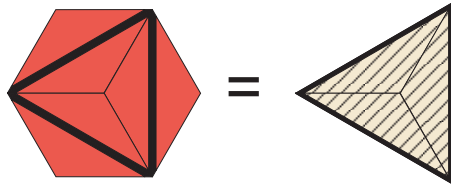
Variation 10

Fold over all the gray equilateral triangles (formerly a trapezoid) to form another equilateral triangle.



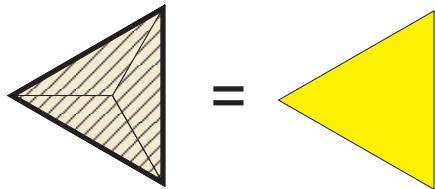
Variation 11

Fold over the red triangles of the hexagon along the black lines to form an equilateral triangle.



Variation 12

Superimpose the yellow control equilateral triangle over the red triangle, to see if it's the same. Line up all the equilateral triangles, pointing out each one (red, green, gray, red, yellow) and place left to right in a row.



Variation 13

Trace the figures on construction paper and cut them out. Paste on poster board for charts or paper for booklets.

Variation 14

Look for hexagonal figures in the environment, in material, in art work, etc.

Variation 15

Label the various figures.